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(54) Title: METHOD FOR RAPID IDENTIFICATION OF ALTERNATIVE SPLICING

(57) Abstract: Alternatively spliced RNA, along with their normally-spliced counterparts, can be rapidly identified by hybridizing cDNA from normal tissue to cDNA from an abnormal or test tissue. The two cDNA populations are separately tagged prior to hybridization, which allows isolation of double-stranded cDNA containing both normal and alternatively spliced molecules. Within this population, pairing of cDNA molecules representing an alternatively spliced mRNA with cDNA molecules representing the counterpart normally spliced mRNA will form double-stranded cDNA with single-stranded mismatched regions. The mismatched double-stranded cDNA are isolated with reagents that bind single-stranded nucleic acids. The strands of each mismatched double-stranded cDNA are then coupled and analyzed, simultaneously identifying both normal and alternatively spliced molecules.